CITY OF MANCHESTER, NEW HAMPSHIRE

INDUSTRIAL PRETREATMENT PROGRAM ANNUAL REPORT

JUNE 1, 2017
THROUGH
MAY 31, 2018

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CITY OF MANCHESTER

Department of Public Works
Environmental Protection Division

July 30, 2018

No. 18-10-MO

Justin Pimpare
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Suite 100
OEP 06-3
Boston, MA 02109-3912

Dear Mr. Pimpare,

On behalf of the City of Manchester, Environmental Protection Division (EPD), I am submitting the 2017/2018 Annual Industrial Pretreatment Program (IPP) Report. The report summarizes the activities of the IPP and the status of all permitted Significant Industrial Users that discharged to the facility from June 1, 2017 to May 31, 2018. Also attached are EPA's revised Compliance Status Work Sheet and the 2017/2018 annual report for the Town of Londonderry, New Hampshire.

In addition to IPP activities, this report also details sampling results for the Wastewater Treatment Plant's Influent, Effluent, and Sludge, as required in Section Five (5) Appendices F, G, and H.

If you have any questions regarding this report, please contact me at (603) 624-6513.

Sincerely,

Christopher J. Crowley
Pretreatment Supervisor

Copy / Enclosure:
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Kevin A. Sheppard, P.E., Public Works Director
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CITY OF MANCHESTER

Department of Public Works
Environmental Protection Division

July 30, 2018

No. 18-11-MO

Alexis Rastorguyeff, PE, SE III
NHDES, Industrial Pretreatment Supervisor
Wastewater Engineering Bureau
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Concord, NH 03302-0095

Dear Mr. Rastorguyeff,

On behalf of the City of Manchester, Environmental Protection Division (EPD), I am submitting the 2017/2018 Annual Industrial Pretreatment Program (IPP) Report. The report summarizes the activities of the IPP and the status of all permitted Significant Industrial Users that discharged to the facility from June 1, 2017 to May 31, 2018. Also attached are EPA's revised Compliance Status Work Sheet and the 2017/2018 annual report for the Town of Londonderry, New Hampshire.

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If you have any questions regarding this report, please contact me at (603) 624-6513.

Sincerely,

Christopher J. Crowley
Pretreatment Supervisor

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EPA Region 1-Annual Pretreatment Report Summary Sheet
June 1, 2017 to May 31, 2018

POTW Name: City of Manchester, NH. Environmental Protection Division EPD

NPDES Permit #: NH0100447

Pretreatment Report Period Start Date: June 1, 2017

Pretreatment Report Period End Date: May 31, 2018

# of Significant Industrial Users (SIUs):	16
# of SIUs Without Control Mechanisms:	0
# of SIUs not Inspected:	0
# of SIUs not Sampled:	0
# of SIUs in Significant Noncompliance (SNC) with Pretreatment Standards:	1
# of SIUs in SNC with Reporting Requirements:	1
# of SIUs in SNC with Pretreatment Compliance Schedule:	0
# of SIUs in SNC Published in Newspaper:	1
# of SIUs with Compliance Schedules:	0
# of Violation Notices Issued to SIUs:	8
# of Administrative Orders Issued to SIUs:	0
# of Civil Suits Filed Against SIUs:	0
# of Criminal Suits Filed Against SIUs:	0
# of Categorical Industrial Users (CIUs):	5
# of CIUs in SNC:	0

Penalties

Total Dollar Amount of Penalties Collected	$ 0
# of IUs from which Penalties have been collected:	0

Local Limits

Date of Most Recent Technical Evaluation of Local Limits:	9/25/2015- Part of NPDES Permit Review Process
Date of Most Recent Adoption of Technically Based Local Limits:	August 5, 1997

Local Limits

Below is listed the maximum concentrations of chemicals allowed in the effluent discharge of any Manchester industry, commercial, business or residential establishment.

Design Plant Flow 34 MGD

Pollutant / Limit (mg/l)	MAHL (lb/day)
• Copper - 4.55 mg/l	- 1,290.26 lb/day
• Cyanide (total) - 2.86 mg/l	- 810.98 lb/day
• Lead - 0.94 mg/l	- 266.55 lb/day
• Mercury - 0.023 mg/l	- 6.52 lb/day
• Silver - 0.90 mg/l	- 255.20 lb/day
• Zinc - 10.42 mg/l	- 2,954.69 lb/day

Screening Levels

Below is a list of acceptable maximum concentrations for certain chemicals. If one of these levels is exceeded by any industry, commercial establishment, business or residential unit then the situation causing the excess contaminant will be reviewed by EPD's monitoring staff. A permit will be issued that reflects the negotiated allowable discharge concentration for that particular parameter. Certain current permits have limits that are above these screening limits, but other safeguards are written into these specific individual permits to offset the increased pollutant discharge.

• Benzene - 0.13 mg/l	- 36.86 lb/day
• BOD - 350 mg/l	- 99,246.00 lb/day
• Carbon Disulfide - 0.06 mg/l	- 17.01 lb/day
• Chlorine - 1,500 mg/l	- 425,340.00 lb/day
• Chloroform - 0.41 mg/l	- 116.26 lb/day
• 1,2 Dicholorethylene - 0.28 mg/l	- 79.40 lb/day
• Sulfide - 1.0 mg/l	- 283.56 lb/day
• Sulfate - 150 mg/l	- 42,534.00 lb/day
• Sulfate - 1,500 mg/l (for type II concrete structures)	- 425,340.00 lb/day
• Sulfite - 280 mg/l	- 79,396.80 lb/day
• Suspended Solids - 350 mg/l	- 99,246.00 lb/day
• Tetrachloroethylene - 0.53 mg/l	- 150.28 lb/day
• 1,1,1 trichloroethane - 1.55 mg/l	- 439.52 lb/day
• Trichloroethene - 0.71 mg/l	- 201.33 lb/day
• Oil & Grease - 100 mg/l (Petroleum or mineral origin, Method 1664 HEM/SGT)	- 28,356.00 lb/day
• Oil & Grease - 350 mg/l (Animal & vegetable origin, Method 1664 HEM)	- 99,246.00 lb/day

City of Manchester, NH Environmental Protection Division (EPD)
June 1, 2017 to May 31, 2018
IPP Annual Report

Information Required By EPA

Section One

An updated list of all industrial users by category, as set forth in 40 CFR 403.8(f)(2)(i), indicating compliance or noncompliance with the following:

Part 1 - 1 Compliance with Baseline Monitoring Requirements and 90-Day Compliance Reports for Newly Promulgated Industries.

There were no 90-day Compliance Reports required during the monitoring period of June 1, 2017 through May 31, 2018. Nonetheless, The City of Manchester, Environmental Protection Division (EPD) does require all Class I Industries that are renewing their discharge permits to submit a sampling report including several more parameters to be tested with their permit application.

Included at the end of this section is *Appendix A*, which lists all Class I Industrial Users (CIUs / SIUs). The worksheet includes the following: permitted average flows, category, and type of pretreatment and permit expiration date. Also included is *Appendix B* which lists the Class II's and A*ppendix C* which lists the Class III Industrial Users.

Part 1 - 2 Compliance Status Reporting Requirements for Newly Promulgated Industries.

All Industries that are subject to monitoring requirements are up to date with their responsibilities. EPD issued no new permit(s) for the Significant Industrial User Classification I (SIU's) during the reporting period of June 1, 2017 through May 31, 2018.

Part 1 - 3 Periodic (Semi-Annual) Monitoring Reporting Requirements.

The Class I listing at the end of Section One (1) *Appendix D* is EPD Industrial Inspection & Sampling worksheet which tracks and verifies compliance. All the Class I CIUs / SIUs are listed on this sheet. The list contains the name and category of each industry, permit number, and the permit expiration date. The names and dates are summarized on page 4 Part 2-3, Summary of Compliance and Enforcement Activities for Compliance Schedules Issued.

Part 1 - 4 Compliance with Categorical Standards.

There were no industries that violated their categorical limits for the reporting period of June 1, 2017 through May 31, 2018.

City of Manchester, NH Environmental Protection Division (EPD)
June 1, 2017 to May 31, 2018
IPP Annual Report

Part 1 - 5 Compliance with Local Limits

There were seven (7) compliance issues with Local Limits during the reporting period of June 1, 2017 through May 31, 2018. All the violations were for the S*creening Limits* for BOD's.

The following industry was out of compliance with the local limits:

1. NYCOA (Permit No. 1015) were out of compliance for S*creening* BOD for daily and monthly allowance of the local limits.

Date	Industry	Local Limit
7/25/2017	NYCOA	S*creening Limits* for BOD's
9/20/2017	NYCOA	S*creening Limits* for BOD's
10/12/2017	NYCOA	S*creening Limits* for BOD's
12/20/2017	NYCOA	S*creening Limits* for BOD's
1/23/2018	NYCOA	S*creening Limits* for BOD's
4/16/2018	NYCOA	S*creening Limits* for BOD's
6/21/2018	NYCOA	S*creening Limits* for BOD's

APPENDIX - A
Class I / Significant Industrial Users

Type of Business	Facility Name	Permit No.	Location	Avg. Flow GPD	CFR	Company Representative	Pretreatment	Permit Expires
Cleaning Services								
1)	Cintas Corporation	1065	324 Taylor Street	38,500		Robert Hippert		4/30/2020
2)	Cintas Corporation	1066	324 Taylor Street	13,700		Robert Hippert	DAF	4/30/2020
3)	E&R Cleaners	1068	80 Ross Ave	70,600		Chris Williams		8/31/2020
4)	Sterling Laundry	1004	39 Beech Street	95,000		Glen Stevens		1/31/2022
Metal Finisher								
5)	Jewell Instrument	1024	850 Perimeter RD	3,700	433	Patty Konstantopoulos	pH Adjustment	11/30/2020
Plastic Production								
6)	NYCOA	1015	333 Sundial Ave	285,000	414	Rob Polce		5/31/2022
Semi-Conductor								
7)	Ion Beam Milling	1105	850 E. Ind. Park Dr.	210	469	Mike Wozniak		
8)	XMA	1040	7 Perimeter Road	560	469	Stephen Traski	pH Adjustment	3/30/2022
Textile Manufacturing								
9)	Velcro USA	1019	95 Sundial Ave	80,100		Bruce Briand	pH Adjustment	11/30/2020
10)	General Cable	1007	345 McGregor St.	23,700		Sara Janik		
Hospital								
11)	Elliot Hospital	1041	1 Elliot Way	69,400		Brad Smith		5/31/2022
12)	Catholic Memorial	1107	100 McGregor St	68,900		Domenic Ciavarro		5/31/2022
13)	Veterans Medical Center	1018	718 Smyth St.	45,000		Amanda Furtado		5/31/2022
Un-Classified								
14)	Manchester Landfill	1102	Front Street	100,000		City of Manchester		2/28/2022
Specialty Industry								
15)	Lyophilization (LSNE)	1005	1 Sundial Street	114,000		Greg Stevenson		8/30/2020
16)	Freudenberg-NOK	1006	50 Ammon Dr.	8,600	428	Kevin Smith	Calfran/pH	11/30/2020

APPENDIX - B
Class II Industrial Users

	Facility Name	Permit No.	Location	Avg. Flow GPD	Company Representative	Description of Facility	Permit Expires
1)	Hitachi Cable America Inc.	2000	900 Holt Avenue	3,000	Dave Murray	Plastic wrap wire cable	11/30/2019
2)	CRYO Industries	2001	11124 South Willow Street	1,000	Kelcie O'Conner	Cryogenic Equipment	2/28/2019
3)	Maple Hurst Bakery	2005	299 Pepsi Road	4,000	Dave Martin	Food bakery	3/31/2019
4)	Color Lines	2012	150 Dow Street Tower 4	2,000	Gary Bishop	Dyes for Clothing	6/30/2019
5)	Chuckles	2013	11925 South Willow Street	2,500	Chuck Frank	Mfg. of Soaps	3/31/2023
6)	Blake's Manchester Creamery	2015	46 Milford Street	2,000	Richard Wolstencroft	Mfg. of Ice Cream	5/31/2019
7)	Budd Foods	2016	431 Somerville Street	10,000	Fredrick Hayes Jr.	Mfg. of Frozen Pies	11/30/2022
8)	H&O Dental	2017	1050 N. Perimeter Road	250	Michelle Maradiaga	Mfg. of False Teeth	5/31/2019
9)	New England Document Systems	2020	780 E. Industrial Park Drive	850	Nick Brattan	Store Microfiche	11/30/2022
10)	Elliot at Rivers Edge	2041	185 Queen City Ave.	7,000	Kristen Petrin-Doucet	Patient Care/Lab-Sterilization	8/31/2021
11)	NH Plastics (1 Bouchard)	2042	One Bouchard Street	1,000	Harold Young	Plastic Moldings	5/31/2019
12)	NH Plastics (315 Bouchard)	2043	315 Bouchard Street	1,600	Ralph Tremblay	Plastic Moldings	5/31/2019
13)	Kyzen Corporation	2044	540 N. Commercial St.	475	Mike Doucette	Solutions for Circuit Ind.	7/31/2020
14)	Symmetry Medical Inc. Polyvac	2046	253 Abby Road	1,900	Ernie Fuller	Mfg. Medical trays	11/30/2019
15)	Summit Packaging Systems Inc.	2047	400 Gay Street	2,300	Chris Gallo	Mfg. Aerosol valves	7/31/2020

APPENDIX - C
Class III Industrial Users

	Facility Name	Permit No.	Permit Expires
1	The Doctor's Office	3001	8/31/18
2	Pepsi Cola	3002	1/31/19
3	Granite State Manufacturing	3003	8/31/20
4	USPS	3004	4/30/19
5	Knoettner	3005	4/30/19
6	Stanley Mitsubishi	3007	9/30/19
7	Enterprise Holdings	3008	2/28/20
8	M.L. Halle	3009	7/31/20
9	Secondwind	3011	7/31/20
10	BAE Oasis	3012	6/30/22
11	Best Qualified Cleaning Inc.	3013	3/31/19
12	Wiggins Airways	3015	8/31/18
13	Windward	3016	1/31/19
14	R & L Carriers	3017	2/28/19
15	Quirk 1250 S. Willow St.	3018	10/31/18
16	Quirk 1100 S. Willow St.	3019	11/30/19
17	Quirk Works - Porter St	3020	10/31/18
18	Steralon	3021	9/30/18
19	Manchester Armory	3022	4/30/21
20	Frank's Signs	3023	4/30/19
21	AutoFair Ford	3025	12/31/18
22	PMC Wire & Cable	3029	6/30/19
23	U-Haul	3031	10/31/18
24	Admix	3033	4/30/19
25	Crawford Vogel & Wenzel	3037	6/30/20
26	Certified Maintenance Ser	3043	8/30/18
27	Liberty Trucks	3039	10/31/20
28	PSNH 73 West Brook St.	3047	2/28/20
29	PSNH 80 West Pennacook	3048	2/28/20
30	PSNH 1580 Elm Street	3042	2/28/20
31	PSNH 780 N.Commercial St.	3051	7/31/18
32	Texas Instruments	3053	5/31/22
33	Kimark Specialty Box Co.	3057	9/30/18
34	Henry's Collision Center	3061	6/30/18
35	Soil-Away Salem, NH	3063	1/31/19
36	A-1 Steam Cleaning	3065	1/31/19
37	Starks Brewery	3066	2/28/23
38	Servpro of Man/Derry	3070	3/31/19
39	Extra Clean Services	3071	4/30/19
40	Walgreens 227 S. Main St.	3077	8/31/18
41	Holloway Cars of Man.	3083	11/30/19
42	Team Nissan	3089	10/31/18
43	Manchester Subaru	3090	9/30/19
44	AutoFair Honda	3091	11/30/19
45	Quirk Parts Warehouse	3092	5/31/21
46	AutoFair Hyundai	3093	11/30/19
47	Merrimack Street Volvo	3094	1/31/20
48	Merrimack Street Volvo	3095	1/31/20
49	Bonneville & Son Inc.	3097	10/31/18
50	State Motors Car Wash	3102	3/31/20
51	Kalwall Corp. - Pine Street	3104	7/31/20
52	Keller Products	3105	7/31/20
53	IRA Toyota	3109	10/31/20
54	Conway Express	3112	8/31/18
55	CVS Pharmacy (271 Mammoth)	3113	8/31/18
56	Kalwall Corp. - 1111 Candia	3120	3/31/18
57	Prestige Auto Body Inc.	3122	9/30/22
58	FedEx Ground Package System	3123	9/30/22

Special / Temporary Discharge Permit

1	Liberty Utilities	T-3001-0118	2/19/2018

APPENDIX - D
Class I/Significant Industrial Users

	EPA Classification	Permit No.	Facility Name	Permit Expires	EPD Inspection City Required	EPD Sampling City Required	July - Dec (17) Self-Mon. Rpt. Ind. Required	July - Dec (17) Flow Rpt. Ind. Required	Jan - June (18) Self-Mon. Rpt. Ind. Required	Jan - June (18) Flow Rpt. Ind. Required
1	SIU	1005	Lyophilization-LSNE	8/31/2020	3/19/2018	3/19/2018	12/13/2017	12/13/2017	6/8/2018	6/8/2018
2	SIU	1065	Alltex-G&K Services	4/30/2020	3/12/2018	4/24/2019	12/6/2017	12/6/2017	5/5/2018	5/5/2018
3	SIU	1066	Alltex-G&K Services	4/30/2020	3/12/2018	4/24/2018	12/6/2017	12/6/2017	6/5/2018	6/5/2018
4	SIU	1068	E & R Laundry	8/31/2020	3/15/2018	4/25/2018	12/26/2017	12/26/2017	NOV	NOV
5	SIU	1041	Elliot Hospital	5/31/2022	3/14/2018	5/4/2018	12/8/2017	12/8/2017	6/5/2018	6/5/2018
6	CIU 428	1006	Freudenberg-NOK	11/30/2020	3/21/2018	3/21/2018	12/12/2017	12/12/2017	6/12/2018	6/12/2018
7	SIU	1102	Front St. Landfill	2/28/2022	Not Required	4/19/2018	Not Required	Not Required	Not Required	Not Required
8	CIU 469	1105	Ion Beam Milling	1/31/2022	3/21/2018	N/D	11/13/2017	11/13/2017	6/11/2018	6/11/2018
9	CIU 433	1024	Jewell	11/30/2020	3/22/2018	3/22/2018	12/12/2017	12/12/2017	6/12/2018	6/12/2018
10	CIU 414	1015	NYCOA	5/31/2022	3/29/2018	4/4/2018	12/12/2017	12/12/2017	6/118/18	6/118/18
11	SIU	1019	Velcro	11/30/2022	3/23/2018	3/23/2018	7/21/2017	12/12/2017	2/8/2018	7/2/2018
12	CIU 469	1040	XMA Corporation	2/28/2022	4/31/18	4/3/2018	12/5/2017	12/5/2017	5/13/2018	5/13/2018
13	SIU	1018	VA Medical Center	1/31/2022	3/27/2018	5/10/2018	8/4/2017	12/13/2007	5/18/2018	5/18/2018
14	SIU	1107	Catholic Medical	5/31/2022	6/18/2018	5/4/2018	12/11/2017	12/11/2017	6/31/18	6/31/18
15	SIU	1007	General Cable	1/31/2020	3/27/2018	N/D	12/21/2017	12/21/2017	5/23/2018	5/23/2018
16	SIU	1004	Sterling Laundry	1/31/2022	3/28/2018	5/2/2018	12/13/2017	12/13/2017	5/22/2018	5/22/2018

Town of Bedford
Lyophilization-LSNE New Permit 5/31/2018

Town of Londonderry
See 2017-2018 IPP Annual Report

Town of Goffstown
No permit acativity

Notes:
1. Front Street is the City of Manchester's Landfill, the IPP staff maintains the permit and sampling activities.
2. E & R Laundry did not sample on July-Dec (16) due to management change, an NOV was issiued

N/D -= No Discharge

City of Manchester, NH Environmental Protection Division (EPD)
June 1, 2017 to May 31, 2018
IPP Annual Report

Information Required By EPA

Section Two

Summary of Compliance and Enforcement Activities during the preceding year, including the number of:

Part 2 - 1 Significant industrial users inspected by POTW (include inspection dates for each industrial user)

The City of Manchester, (EPD) inspections are summarized on the Industrial Inspection and Sampling Worksheet *Appendix D* at the end of Section One. All Class I inspections were performed from June 1, 2017 through June 31, 2018. EPD also completed the Industrial Class II and Class III permit renewals for this monitoring period. EPD's enforcement tracking sheet is summarized on the Enforcement Response Worksheet *Appendix E* at the end of Section Three.

Part 2 - 2 Summary of significant industrial users sampled by the POTW.

The City of Manchester, (EPD) Industrial sampling is summarized on the Industrial Inspection and Sampling Worksheet *Appendix D* at the end of Section One. All Class I industry's sampling activities were performed from June 1, 2017 through May 31, 2018.

Below are our sampling activities that will continue throughout the upcoming reporting year:

1. The Town of Londonderry is continuing to monitor the collection system quarterly for excess organic loading and sulfides generated due to the degredation of the high strength waste in the Londonderry sewer system. EPD will continue to monitor for silver, copper, mercury, lead, zinc, selenium, aluminum and total phosphorous. EPD is continuing to collect the data to see if they are contributing to the treatment plants loadings.

2. EPD has implemented extensive effluent sampling as required by the present NPDES permit. The facility is sampling bi-monthly for copper, lead and total phosphorous from the final effluent.

3. In the past, EPD has had ongoing issues with copper, silver, zinc, and mercury discharges from contributing towns (Bedford, Londonderry, and Goffstown). The sampling activities that were conducted this reporting period indicated that none of the three towns exceeded their allowable pounds of discharge for the parameters sampled.

EPD will continue to monitor the Towns for the metals listed above and continue to monitor for aluminum and total phosphorous to determine whether or not they are contributing to the treatment plants loadings.

Part 2 - 3 Summaries of Compliance and Enforcement Activities for Compliance Schedules Issued.

There were no enforcement activities or compliance schedules for the sixteen (16) CAT/SIU industries that are required to be permitted, sampled and inspected.

Part 2 - 4 Summaries of Compliance and Enforcement Activities for Written Notices of Violation Issued.

The City of Manchester, EPD, Industrial Enforcement Activities are summarized on the Enforcement Worksheet *Appendix E* at the end of Section Three. EPD issued eight (8) written Notice of Violations.

Of the eight (8) violations, seven (7) were for *Screening Limits* for BOD. In *Appendix E* is the breakdown of the Enforcement Log for the reporting period of June 1, 2017 through May 31, 2018.

One (1) violation was for an industry not submitting their periodical compliance reports (PCR) for the sampling and reporting period of June 1, 2017 through May 31, 2018.

Part 2 - 5 Summary of Compliance and Enforcement Activities Involving Administrative Orders Issued.

The City of Manchester, EPD did not issue any Administrative Orders during this reporting period of June 1, 2017 through May 31, 2018.

However, On November 15, 2017 the City reinstated the billing ratio to 1.7 on NYCOA's monthly sewer bill because they couldn't meet the effluent discharge limits of 3,920 lbs/day of caprolactam.
On May 2, 2018 the City agreed to lower the billing ratio back to 1.0 starting with April's sewer bill because NYCOA demonstrated six (6) months of compliance meeting their discharge limits of caprolactam. The City reserves the right to reinstitute the higher ratio if NYCOA is non-compliant in the future.

Part 2 - 6 Summary of Compliance and Enforcement Activities Involving Civil or Criminal Suits Filed.

The City of Manchester, EPD did not file any Civil or Criminal Suits during this reporting period of June 1, 2017 through May 31, 2018.

Part 2-7 Summary of Compliance and Enforcement Activities Involving Penalties Obtained.

The City of Manchester, EPD did not issue or collect any penalties to any permitted industries during this reporting period.

City of Manchester, NH Environmental Protection Division (EPD)
June 1, 2017 to May 31, 2018
IPP Annual Report

Information Required By EPA

Section Three
List of Significantly Violating Industries Requiring Publication.

In review of this year's inspections, self-monitoring reports and submission of periodic compliance reporting it was determined that all reporting and monitoring criteria have been met by all Class I permitted industries.

The City of Manchester, EPD had issued eight (8) notices of violations. Seven (7) of the violations were to NYCOA (Permit No. 1015) because they did not meet the City's *Screening Limits* for BOD during the sampling period.

The other one (1) violation was for the industry who did not conduct their reporting / sampling requirements during the sampling period.

1). E&R Cleaners (Permit No. 1068) was sent a NOV on 7/10/2018

The one (1) industry will be published as a Significantly Non-Compliant (SNC) industry in the local paper. A copy of the news article will be provided and a copy of the original article will be sent to your office.

LEGAL NOTICE

In accordance with the Federal Regulations, the City of Manchester, Department of Public Works, Environmental Protection Division, is required to make this public notice. Listed below are the wastewater discharge violations of the requirements of 40CFR Part 403 (General Industrial Pretreatment Regulations) that occurred during the reporting year of June 1, 2017 through May 31, 2018.

Industry Name: E&R Cleaners

Address: 80 Ross Ave., Manchester, NH 03103

Violation: Failure to provide and perform self-monitoring testing for the semi-annual period ending, December 15, 2017 to May 31, 2018. On July 2018 a Notice of Violation was issued.

Status: E & R Cleaners submitted their Periodic Compliance Report for the Semi-Annual period ending January 2018.

Penalties: Penalties were not assessed or deemed necessary for the incident.

APPENDIX - E
ENFORCEMENT RESPONSE LOG

	Facility	Permit No.	Description of Notice of Violation	Control Authority Action	Date Issued	Due Date	Date Received	Final Resolutions of the NOV Issued
1	NYCOA	1015	June 2017- Exceedance of Local Limits Screening for BOD	City issued a NOV and requested an explanation within 30 days of notice	7/25/2017	8/25/2018	8/18/2017	NYCOA replied in a email on 6/14/17 as an explanation of the high test value you saw for the sample taken that day. The email explains the failure of the sampler and the activity of our production facility. This explains a contributing factor to the high monthly average recorded. Since then, NYCOA ordered and received a new sampler with a backup replacement head to be installed on Monday, August 21st. A HACH technician will do the installation and calibration.
2	NYCOA	1015	August 2017- Exceedance of Local Limits Screening for BOD	City issued a NOV and requested an explanation within 30 days of notice	9/20/2017	10/20/2017	10/19/2017	NYCOA had shut down for maintenance and boiler inspection. Complete shutdown will begin on Sunday the 12th . Production in the Compounding area might star up on Monday the 21st. Other production departments will startup sometime during the week of the 21st which caused the excess of Capro.
3	NYCOA	1015	September 2017- Exceedance of Local Limits Screening for BOD	City issued a NOV and requested an explanation within 30 days of notice	10/12/2017	11/12/2017	10/19/2017	NYCOA show that on the 6th and 7th, their recovery system was down for repair due to some startup issues following the plant shutdown. The recovery system was restarted on the 7th. On the 13th of September, some of the recovered water had to be drained to the effluent to prevent overflow and shut down of the recovery system. Since then, Nycoa purchased some empty totes to be used to capture any excess recovered water should the situation arise again.

APPENDIX - E
ENFORCEMENT RESPONSE LOG

	Facility	Permit No.	Description of Notice of Violation	Control Authority Action	Date Issued	Due Date	Date Received	Final Resolutions of the NOV Issued
4	NYCOA	1015	November 2017- Exceedance of Local Limits Screening for BOD	City issued a NOV and requested an explanation within 30 days of notice	12/20/2017	1/20/2018	1/16/2018	On 11/16 and 11/17 which contributed to the monthly limit violation. The Recovery system was down with mechanical problems for parts of both of these days and was not able to process waste water thereby we had no option but to discharge the water. NYCOA had implemented ways of collecting this water now in cases like this to avoid discharging water with higher levels of organics.
5	NYCOA	1015	December 2017- Exceedance of Local Limits Screening for BOD	City issued a NOV and requested an explanation within 30 days of notice	1/23/2018	2/23/2018	2/7/2018	To reduce our effluent throughput and also the amount of organic content. Over the last couple of months the impact our work is having on the amount of organics we are sending the city. There was a short period of time in December where we were experimenting with how we operate our facility which resulted in higher effluent readings. NYCOA concluded that the design of a portion of the line was flawed which we have re-designed and will implement in March. NYCOA had put in place measures to detect along with abilities to automatically divert material that will prevent future violations. From the data, NYCOA ask to have a meeting with the city to discuss the possibility of reducing our charge factor from 1.7 back to 1.0.

APPENDIX - E
ENFORCEMENT RESPONSE LOG

	Facility	Permit No.	Description of Notice of Violation	Control Authority Action	Date Issued	Due Date	Date Received	Final Resolutions of the NOV Issued
6	NYCOA	1015	March 2018- Exceedance of Local Limits Screening for BOD	City issued a NOV and requested an explanation within 30 days of notice	1/23/2018	2/23/2018	2/23/2018	During this exceedance NYCOA was in the process of installing our vacuum condensers and doing a clean out on our Vacuum Stage which caused this NOV.
7	NYCOA	1015	May 2018- Exceedance of Local Limits Screening for BOD	City issued a NOV and requested an explanation within 30 days of notice	6/21/2018	7/23/2018	6/21/2018	NYCOA explained the high number yesterday that bled into todays reading also. They had an o-ring failure on our capro filter housing that is on the first floor. This material made its way easily to the chemical sewer. This was found and fixed the next day at approximately 10am.
8	E & R Cleaners	1068	March 2018- Exceedance of Local Limits Screening for BOD	City issued a NOV and requested an explanation within 30 days of notice	7/10/2018	8/10/2018	*	E&R recognized due to the TWO previous maintenance managers departures failed to conduct their sampling requirements.

* As of the time of report submission, the City has not received the required documents.

City of Manchester, NH Environmental Protection Division (EPD)
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Information Required By EPA

Section Four

A Narrative Description of Program Effectiveness Including Present and Proposed Changes to the Program

Part 4 - 1 Effectiveness and Changes in Program.

The City of Manchester (EPD) operates a 34-MGD secondary activated sludge plant. The major components of the operation are grit removal, primary clarification, aeration, secondary settling and clarification, chlorination and dechlorination. Sludge is burned onsite through a fluidized-bed incinerator.

The City of Manchester has had an approved Industrial Pretreatment Program since1980 that oversees three classifications of industrial users. The Class I are the CAT/SIU users. The Class II is industries that have certain permitted limitations. The Class III are mostly industries that had either a silvery recovery unit or a oil water separator. The City considers the Class II and III non SIU but have a potential to upset the treatment facility. All permitted industries are reviewed and permits are renewed every 5 years.

EPD has initiated the newly §441.40 pretreatment standards for new sources (PSNS) for Dental Amalgam Separator Rule. As of July 14, 2017, any new source subject to this part must comply with the requirements of §441.30(a) and (b) and the reporting and recordkeeping requirements of §441.50. On June 2018, EPD has started our annual inspection of all Dental Offices within the City of Manchester. We will establish a new inspection sheet tracking compliance and submit the database to the State of NH IPP Coordinator and EPA's Region One-Pretreatment Coordinator for their review.

EPD has written a draft Fats Oil and Grease (FOG) program that will be implemented in our Phase III CMOM program. The City will contact the State of NH IPP Coordinator and EPA's Region One-Pretreatment Coordinator for their comments prior to implementation.

Part 4 - 2 Narrative Description of Program Staffing.

The City of Manchester, (EPD) Monitoring Department is divided into four (4) programs, CSO, CMOM, Stormwater and the Industrial Pretreatment Program. The Environmental Permits Program Coordinator Jeremy Bouvier oversees the programs.

The Pretreatment program is administered by Christopher Crowley with the assistance of engineering technician Kyle St.Pierre. Kyle's role is assisting with Stormwater and CMOM projects, as well as pretreatment activities when needed.

Part 4 - 3 Narrative Description of Funding and Resources

The City of Manchester (EPD) is funded through the operating budget, which is supported by the City of Manchester sewer user revenues. Revenues are collected from sewer users through a combination of sewer use charges. All sewer users in the City of Manchester pay sewer user fees based on water consumption. The three towns serviced by the EPD are assessed fees based on their measured sewer flows and loadings into the Manchester Sewer System.

Part 4 - 4 Narrative Description of the Sewer Use Ordinance

The EPA and the Mayor and Board of Aldermen adopted the present Sewer Use Ordinance in 1997. The Ordinance is effective and adequate in addressing the requirements of Part 403 of the Federal Pretreatment Program requirements.

The few minor changes since adoption have been submitted with the updated IPP sent to EPA on May 11, 2007. On August 22, 2007 EPA responded to our Streamlining Rule modifications to the latest version of the Sewer Ordinance. This was adopted by Board of Mayor and Alderman on November 18, 2014.

Information Required By EPA

Section Five

Summary of Analytical Data.

This section includes the following data:

1. Summary of POTW Annual Influent Monitoring Results for the period of June 2017 through May 2018 compared to threshold inhibition concentrations. *See Appendix F*

2. Summary of POTW Annual Effluent Monitoring Results for the period of June 2017 through May 2018 compared to threshold inhibition concentrations. *See Appendix G*

3. Summary of Sludge Priority Pollutant Analysis Data for the period of June 2017 through May 2018. *See Appendix H*

4. Executive Summary of the Analytical Data is attached in the form of tables. The toxicity data is the summary sheets submitted by the contracted laboratory.

City of Manchester, NH Environmental Protection Division (EPD)
June 1, 2017 to May 31, 2018
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STUDY NUMBER 29415

EXECUTIVE SUMMARY

The following summarizes the results of modified acute and chronic exposure bioassays completed during **July 2017**, using samples collected from the Manchester, New Hampshire Wastewater Treatment Facility. Acute and chronic toxicity was evaluated using the freshwater species, *Ceriodaphnia dubia and Pimephales promelas.*

Test organisms used for the acute assays were <24 hours old. *C. dubia* derived from ESI cultures, and 10 day old P. promelas obtained from Aquatic Research Organisms, Hampton, New Hampshire. Test organisms used for the chronic assays were <24 hours old C. dubia cultured at ESI and released within 8 hours of one another, and <48 hours old P. promelas supplied by Aquatic BioSystems, Inc. of Fort Collins, Colorado. Dilution water was receiving water collected from the Merrimack River upstream of the discharge. Samples were received under chain of custody in good order. All samples receipt, test conditions and control endpoints were within protocol specifications, except where otherwise noted.

The results presented in this report relate only to the samples described on the chain(s) of custody and the sampling receipt log(s), and are intended to be used only by the submittor. Results from the chronic and modified acute exposure assays, and their relationship to permit limits are summarized in the following matrix.

Acute Toxicity Evaluation

Species	Exposure	LC-50	A-NOEC	Permit Limit (LC-50)	Effluent Meets Permit Limit	Assay Meets Protocol Limits
Ceriodaphnia dubia	48-Hours	>100 %	NC	>100 %	Yes	Yes
Pimephales promelas	48-Hours	>100 %	NC	>100 %	Yes	Yes

Chronic Toxicity Evaluation

Species	Exposure	C-NOEC	IC-25	Permit Limit (C-NOEC)	Effluent Meets Permit Limit	Assay Meets Protocol Limits
Ceriodaphnia dubia [a]	8 Days	100 %	N/C	>8.5 %	Yes	Yes [b]
Pimephales promelas	7 Days	100 %	>100%	>8.5 %	Yes	Yes

COMMENTS:
NC = Not Calculated.
[a] The daphnid in the J replicate of the 100% test concentration was unaccounted for on test day 7: therefore, this replicate was excluded from the statistical analyses and brood production calculation.
[b] The receiving water diluent control, and 8.5%, 12.5%, and 100% test concentrations failed to meet the test acceptability criterion for brood production. The assay also failed to meet the test acceptability criterion for variability (MSDp). The receiving water performed poorly relative to other test concentrations and the dose response generally follows in inverse trend. The non-diluent laboratory control and all other test concentrations meet and exceed test acceptability criteria. USEPA guidance supports a finding of no toxicity with this type on inverse dose-response (USEPA 2000), therefore, these data are considered valid.

City of Manchester, NH Environmental Protection Division (EPD)
June 1, 2017 to May 31, 2018
IPP Annual Report

STUDY NUMBER 29791

EXECUTIVE SUMMARY

The following summarizes the results of acute and chronic exposure bioassays completed during **October 2017** using samples collected from the Manchester, New Hampshire Wastewater Treatment Facility. Acute and chronic toxicity was evaluated using the freshwater species, *Ceriodaphnia dubia Pimephales promelas*.

Test organisms used for the acute assays were <24 hours old. *C. dubia* derived from ESI cultures, and 10 day old P. promelas obtained from Aquatic Research Organisms, Hampton, New Hampshire. Test organisms used for the chronic assays were <24 hours old C. dubia cultured at ESI and released within 8 hours of one another, and <48 hours old P. promelas supplied by Aquatic BioSystems, Inc. of Fort Collins, Colorado. Dilution water was receiving water collected from the Merrimack River upstream of the discharge. Samples were received under chain of custody in good order. All samples receipt, test conditions and control endpoints were within protocol specifications, except where otherwise noted.

The results presented in this report relate only to the samples described on the chain(s) of custody and sampling receipt log(s), and are intended to be used only by the submitter. Results from the chronic and modified acute exposure assays and their relationship to permit limits are summarized in the following matrix.

Acute Toxicity Evaluation

Species	Exposure	LC-50	A-NOEC	Permit Limit (LC-50)	Effluent Meets Permit Limit	Assay Meets Protocol Limits
Ceriodaphnia dubia	48-Hours	>100 %	NC	>100 %	Yes	Yes
Pimephales promelas	48-Hours	>100 %	NC	>100 %	Yes	Yes

Chronic Toxicity Evaluation

Species	Exposure	C-NOEC	IC-25	Permit Limit (C-NOEC)	Effluent Meets Permit Limit	Assay Meets Protocol Limits
Ceriodaphnia dubia	8 Days	100 %	>100%	>8.5 %	Yes	Yes [a]
Pimephales promelas	7 Days	100 %	N/C	>8.5 %	Yes	Yes

COMMENTS:
NC=Not Calculated
[a] The daphnid assay failed to meet the protocol specified statistical variability limit, MSDp for reproduction. The MSDp was computed to be 61.0%, which exceeds the acceptable range of 13% - 47% specified by the method protocol. All other test acceptability criteria were met, and the calculated IC-25 value for reproduction was >100%. Based on these findings, these data are considered provisionally valid.
[b] Due to laboratory technician error, all replicates, except replicate F, of the laboratory control were overlooked on test day 7.

City of Manchester, NH Environmental Protection Division (EPD)
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STUDY NUMBER 30220

EXECUTIVE SUMMARY

The following summarizes the results of modified acute and chronic exposure bioassays completed during **February 2018**, using samples collected from the Manchester, New Hampshire Wastewater Treatment Facility. Acute and chronic toxicity was evaluated using the freshwater species, *Ceriodaphnia dubia and Pimephales promelas.*

Test organisms used for the acute assays were <24 hours old. *C. dubia* derived from ESI cultures, and 10 day old P. promelas obtained from Aquatic Research Organisms, Hampton, New Hampshire. Test organisms used for the chronic assays were <24 hours old C. dubia cultured at ESI and released within 8 hours of one another, and <48 hours old P. promelas supplied by Aquatic BioSystems, Inc. of Fort Collins, Colorado. Dilution water was receiving water collected from the Merrimack River upstream of the discharge. Samples were received under chain of custody in good order. All samples receipt, test conditions and control endpoints were within protocol specifications, except where otherwise noted.

The results presented in this report relate only to the samples described on the chain(s) of custody and sampled receipt log(s), and are intended to be used only by the submitter. Results from the chronic and acute exposure assays and their relationship to permit limits are summarized in the following matrix.

Acute Toxicity Evaluation6

Species	Exposure	LC-50	A-NOEC	Permit Limit (LC-50)	Effluent Meets Permit Limit	Assay Meets Protocol Limits
Ceriodaphnia dubia	48-Hours	>100 %	NC	>100 %	Yes	Yes
Pimephales promelas	48-Hours	>100 %	NC	>100 %	Yes	Yes

Chronic Toxicity Evaluation

Species	Exposure	C-NOEC	IC-25	Permit Limit (C-NOEC)	Effluent Meets Permit Limit	Assay Meets Protocol Limits
Ceriodaphnia dubia [a]	7 Days	100 %	NC	>8.5 %	Yes	Yes
Pimephales promelas	7 Days	100 %	NC	>8.5 %	Yes	Yes [b]

COMMENTS:
NC = Not Calculated
[a] The E replicate of the receiving water control was removed from the statistical analyses and brood production calculation because the daphnid is this replicate was missing on test day 6.
[b] The receiving water diluent control and the 12.5% test concentration failed to meet the test acceptability criterion for minnow survival. The assay also failed to meet the test acceptability criterion for minnow survival. The assay also failed to meet the test acceptability criterion for variability (MSDp). The receiving water performed poorly relative to other test concentrations and the dose response generally follows an inverse trend. The non-diluent laboratory control and all other test concentration meet the dose response generally follows an inverse trend. The non-diluent laboratory control and all other test concentrations meet and exceed test acceptability criteria. US EPA guidance supports a finding of no toxicity with this type of inverse dose-response (US EPA 2000; therefore, these data are considered valid.

Manchester WWTF Effluent Evaluation, February 2018.
Study number 30220.

City of Manchester, NH Environmental Protection Division (EPD)
June 1, 2017 to May 31, 2018
IPP Annual Report

STUDY NUMBER 30505

EXECUTIVE SUMMARY

The following summarizes the results of modified acute and chronic exposure bioassays completed during **April 2018**, using samples collected from the Manchester, New Hampshire Wastewater Treatment Facility. Acute and chronic toxicity was evaluated using the freshwater species, *Ceriodaphnia dubia and Pimephales promelas.*

Test organisms used for the acute assays were <24 hours old. *C. dubia* derived from ESI cultures, and 10 day old P. promelas obtained from Aquatic Research Organisms, Hampton, New Hampshire. Test organisms used for the chronic assays were <24 hours old C. dubia cultured at ESI and released within 8 hours of one another, and <48 hours old P. promelas supplied by Aquatic BioSystems, Inc. of Fort Collins, Colorado. Dilution water was receiving water collected from the Merrimack River upstream of the discharge. Samples were received under chain of custody in good order. All samples receipt, test conditions and control endpoints were within protocol specifications, except where otherwise noted.

The results presented in this report relate only to the samples described on the chain(s) of custody and the sampling receipt log(s), and are intended to be used only by the submittor. Results from the chronic and modified acute exposure assays, and their relationship to permit limits are summarized in the following matrix.

Acute Toxicity Evaluation

Species	Exposure	LC-50	A-NOEC	Permit Limit (LC-50)	Effluent Meets Permit Limit	Assay Meets Protocol Limits
Ceriodaphnia dubia	48-Hours	>100 %	NC	>100 %	Yes	Yes
Pimephales promelas	48-Hours	>100 %	NC	>100 %	Yes	Yes

Chronic Toxicity Evaluation

Species	Exposure	C-NOEC	IC-25	Permit Limit (C-NOEC)	Effluent Meets Permit Limit	Assay Meets Protocol Limits
Ceriodaphnia dubia	8 Days	100 %	NC	>8.5 %	Yes	Yes [a]
Pimephales promelas [b]	7 Days	100 %	>100%	>8.5 %	Yes	Yes

COMMENTS:
NC = Not Calculated
[a] The receiving water control and several test concentrations fail to meet the test acceptability criterion for brood production. The laboratory control meets this criterion and all other test acceptability criteria are met. Based on this, these data are considered provisionally valid.
[b] Replicate A of the receiving water control was removed from the statistical analyses due to abnormal mortality.

INFLUENT INFORMATION		State H2O Quality Criteria Acute	Criteria Corrected for 7Q10 Acute	State H2O Quality Criteria Chronic	Criteria Corrected for 7Q10 Chronic	Compliance Status
Date of Analysis	5/22/2018					
Lab I.D.	30688					
Listed Parameter	Concentration mg/l	Concentration mg/l (*)	Concentration mg/l	Concentration mg/l (*)	Concentration mg/l	Yes or No
Antimony						
Aluminum	0.14					
Arsenic	0.0012	0.36	4.2552	0.19	2.24580	Yes
Barium						
Beryllium						
Cadmium	N/D	0.00082	0.00969	0.00038	0.0044916	Yes
Calcium						
Chromium	N/D	0.176	2.08032	0.057	0.67374	Yes
Copper	0.038	0.0046	0.054372	0.0035	0.04137	No
Hardness						
Fluoride						
Iron						
Lead	0.0016	0.014	0.16548	0.00055	0.0065010	Yes
Magnesium						
Mercury	0.00002	0.00204	0.02411	0.000012	0.000142	Yes
Molybdenum						
Nickel	0.0021	0.438	5.17716	0.0487	0.57563	Yes
Phenolic (T)	0.04					Yes
Selenium						
Silver	N/D	0.00032	0.0037824			Yes
Thallium	N/D					Yes
Vanadium						
Zinc	0.078	0.0354	0.418428	0.0322	0.38060	No
Cyanide	N/D	0.022	0.26004	0.0052	0.06146	Yes
Oil & Grease	7.00					
Oil & Grease W/SGT						
T. Phosphorus	3.50					
ORGANICS	See Note below					
added 625	1,2 diphenylhydrazine					
3 and 4 methylphenol (p-cresol)	N/D					

The sample was tested for 624 - 625 and one compounds were seen at or above the detective limits.

* The Merrimack River 7Q10 is at 412 MGD

Manchester has an average daily flow of 26 MGD and the correction factor is 11.82 X

APPENDIX - G
EFFLUENT SAMPLING RESULTS

EFFLUENT INFORMATION		State H2O Quality Criteria	Criteria Corrected for 7Q10	State H2O Quality Criteria	Criteria Corrected for 7Q10	Compliance Status
Date of Analysis	5/22/2018					
Lab I.D.	30685	Acute	Acute	Chronic	Chronic	
Listed Parameter	Concentration mg/l	Concentration mg/l (*)	Concentration mg/l	Concentration mg/l (*)	Concentration mg/l	Yes or No
Antimony						
Aluminum	0.022					
Arsenic	N/D	0.36	4.2552	0.19	2.24580	Yes
Barium						
Beryllium						
Cadmium	N/D	0.00082	0.00969	0.00038	0.0044916	Yes
Calcium						
Chromium	N/D	0.176	2.08032	0.057	0.67374	Yes
Copper	0.0055	0.0046	0.054372	0.0035	0.04137	Yes
Hardness						
Fluoride						
Iron						
Lead	0.0004	0.014	0.16548	0.00055	0.0065010	Yes
Magnesium						
Mercury	N/D	0.00204	0.02411	0.000012	0.000142	Yes
Molybdenum						
Nickel	0.0018	0.438	5.17716	0.0487	0.57563	Yes
Phenolic (T)	N/D					Yes
Selenium						
Silver	N/D	0.00032	0.0037824			Yes
Thallium	N/D					Yes
Vanadium						
Zinc	0.042	0.0354	0.418428	0.0322	0.38060	Yes
Cyanide	N/D	0.022	0.26004	0.0052	0.06146	Yes
Oil & Grease	N/D					
Oil & Grease W/SGT						
T. Phosphorus	0.48					
ORGANICS	See Note below					
added 625	1,2 diphenylhydrazine					

The sample was tested for 624-625

*The Merrimack River 7Q10 is at 412 MGD

Manchester has an average daily flow of 26 MGD and the correction factor is 11.82X

Date Received	6/23/2017	7/20/2017	8/23/2017	9/15/2017	TCLP Limits	NPDES	503 Rags	State NH (1)	State of
Lab ID Number	29317	29435	29585	29669	Criteria	Permit 5/1/15	Sub B (1)	Criteria	Compliance
Listed Parameter	ug/g	ug/g	ug/g	ug/g	mg/kg dry wt.	mg/kg dry wt.	mg/kg dry wt.	mg/kg dry wt.	mg/kg dry wt.
Aluminum	3460.00	2490.00		3070.00					
Antimony	1.67	1.61		1.27					
Arsenic	4.64	4.16	5.91	5.10	**100**	**8,573**	**41**	**32**	**Yes**
Barium	314.00	270.00	223.00	173.00	**2,000**				
Beryllium	0.41	0.28		0.25					
Boron	5.32	5.01		3.45					
Cadmium	2.50	1.49	1.69	1.27	**20**	**43,416**	**39**	**14**	**Yes**
Chromium	17.90	14.50	24.00	18.80	**100**	**1,423,398**	**1,200**	**1,000**	**Yes**
Copper	272.00	253.00		219.00			**1,500**	**1,500**	**yes**
Iron	9800.00	7500.00		8430.00					
Lead	46.30	21.70	60.50	35.30	**100**	**262,781**	**300**	**300**	**Yes**
Mercury	0.43	0.41	0.41	0.35	**4**		**17**	**10**	**Yes**
Molybdenum	4.61	4.67		5.26			**75**	**35**	**Yes**
Nickel	11.60	9.54		10.70		**213,643**	**420**	**200**	
Selenium	3.75	4.17	3.76	3.05	**20**		**100**	**28**	**Yes**
Silver	2.00	1.49	1.92	1.65	**100**				**Yes**
Thallium	N/D	N/D		N/D					
Vanadium	6.47	4.84		7.54					
Zinc	671.00	610.00		481.00			**2,800**	**2,500**	**Yes**
% Solids	26.00%	25.40%	30.00%	34.40%					
Free Lq (Paint Filter)	Absent	Absent	Absent	Absent					
% Carbon									
Total Organic Carbon									
% CaCO3 -eq.									
pH (Soil)									
Date of Analysis	6/27/2017	8/10/2017	9/13/2017	9/18/2017					
Lab ID Number	29317-001	29435-001	29585-001	29669-001					
Concentration ug/g dr	mg/Kg	mg/Kg	mg/Kg	mg/Kg					
acetone									
2-Butanone (MEK)									
1,2-dichloroethane									
1,1-dichloroethene									
1,4-dichlorobenzene				7.20					
benzene									
carbon tetrachloride									
toluene			2.30	94.00					
chloroform									
methyl ethyl ketone	80.00			2500.00					
tetrachloroethene									
trichloroethene									
vinyl chloride									
2-methylphenol (m-creasol)									
3-4-methylphenol(p-o-c)			120.00						
1,4 dichlorobenzene									
o-cresol	97.00	140.00							
m-cresol									
p-cresol	97.00	140.00							
2,4-dinitrotoluene									
hexachlorobenzene									
hexochloro-1,3-butadiene									
hexachloroethane									
methylene chloride			7.50						
pentachlorophenol	5.90	5.70							
Pryidine									
2,4,5-trichlorophenol									
2,4,6-trichlorophenol									
phenol									

Date Received	11/21/2017	12/21/2017	1/15/2018	2/26/2018	TCLP Limits	NPDES	503 Rags	State NH (1)	State of
Lab ID Number	29998	30118	30187	30335	Criteria	Permit 5/1/15	Sub B (1)	Criteria	Compliance
Listed Parameter	ug/g	ug/g	ug/g	ug/g	mg/kg dry wt.	mg/kg dry wt.	mg/kg dry wt.	mg/kg dry wt.	mg/kg dry wt.
Aluminum	10850.00	2460.00	1550.00						
Antimony	4.86	1.57	1.32						
Arsenic	11.10	3.59	2.28	3.72	**100**	**8,573**	**41**	**32**	**Yes**
Barium	964.00	208.00	147.00	193.00	**2,000**				
Beryllium	1.23	0.24	0.14						
Boron	7.43	4.24	4.75						
Cadmium	7.28	5.19	1.68	5.37	**20.0**	**43,416**	**39**	**14**	**Yes**
Chromium	56.10	14.30	11.20	17.40	**100**	**1,423,398**	**1,200**	**1,000**	**Yes**
Copper	993.00	272.00	201.00				**1,500**	**1,500**	**yes**
Iron	27000.00	5730.00	4050.00						
Lead	143.00	25.80	32.40	31.30	**100**	**262,781**	**300**	**300**	**Yes**
Mercury	0.52	0.44	0.22	0.25	**4.0**		**17**	**10**	**Yes**
Molybdenum	11.70	4.24	3.32				**75**	**35**	**Yes**
Nickel	39.00	9.73	7.32			**213,643**	**420**	**200**	
Selenium	3.99	5.04	4.50	2.67	**20.0**		**100**	**28**	**Yes**
Silver	7.48	3.01	1.67	2.06	**100**				**Yes**
Thallium	0.48	0.20	N/D						
Vanadium	20.70	4.40	2.52						
Zinc	2350.00	684.00	457.00				**2,800**	**2,500**	**Yes**
% Solids	33.70%	24.60%	23.90%						
Free Lq (Paint Filter)	Absent	Absent	Absent	Absent					
% Carbon									
Total Organic Carbon									
% CaCO3 -eq.									
pH (Soil)									

Date of Analysis	11/17/2017	12/14/2017	1/23/2018	3/12/2018
Lab ID Number	29998-001	30118.001	30187-001	30335-001
Concentration ug/g dry	mg/Kg	mg/Kg	mg/Kg	mg/Kg
acetone				
2-Butanone (MEK)				
1,2-dichloroethane				
1,1-dichloroethene				
1,4-dichlorobenzene				2.40
benzene				
carbon tetrachloride				
toluene	96.80			
chloroform				
methyl ethyl ketone				1600.00
tetrachloroethene		8.90		
trichloroethene				
vinyl chloride				
2-methylphenol (m-creasol)				
3-4-methylphenol(p-o-c	50.00	3000.00		
1,4 dichlorobenzene				
o-cresol	50.00	34.00		5.50
m-cresol				
p-cresol	50.00	34.00		5.50
2,4-dinitrotoluene				
hexachlorobenzene				
hexochloro-1,3-butadiene				
hexachloroethane				
nitrobenzene				
pentachlorophenol		3.20		
Pryidine				
2,4,5-trichlorophenol				
2,4,6-trichlorophenol				
phenol				

Date Received	3/22/2018	4/20/2018	5/18/2018	6/14/2018	TCLP Limits	NPDES	503 Rags	State NH (1)	State of
Lab ID Number	30448	30557	30687	30766	Criteria	Permit 5/1/15	Sub B (1)	Criteria	Compliance
Listed Parameter	ug/g	ug/g	ug/g	ug/g	mg/kg dry wt.	mg/kg dry wt.	mg/kg dry wt.	mg/kg dry wt.	mg/kg dry wt.
Aluminum		2670.00							
Antimony		1.55							
Arsenic	2.38	2.95	3.61	5.13	**100**	**8,573**	**41**	**32**	**Yes**
Barium	212.00	224.00	242.00	310.00	**2,000**				
Beryllium		0.32							
Boron		4.31							
Cadmium	6.54	3.17	3.23	1.97	**20.0**	**43,416**	**39**	**14**	**Yes**
Chromium	19.00	15.30	13.90	17.50	**100**	**1,423,398**	**1,200**	**1,000**	**Yes**
Copper		224.00					**1,500**	**1,500**	**yes**
Iron		9500.00							
Lead	28.50	28.50	33.70	38.90	**100**	**262,781**	**300**	**300**	**Yes**
Mercury	0.25	0.92	0.34	0.45	**4.0**		**17**	**10**	**Yes**
Molybdenum		3.96					**75**	**35**	**Yes**
Nickel		10.10				**213,643**	**420**	**200**	
Selenium	3.09	3.05	4.31	4.98	**20.0**		**100**	**28**	**Yes**
Silver	1.63	2.55	2.68	3.92	**100**				**Yes**
Thallium		N/D							
Vanadium		5.67							
Zinc		598.00					**2,800**	**2,500**	**Yes**
% Solids	24.50%	22.10%	26.70%	26.70%					
Free Lq (Paint Filter)	Absent	Absent	Absent	Absent					
% Carbon									
Total Organic Carbon									
% CaCO3 -eq.									
pH (Soil)									

Date of Analysis	3/22/2018	4/20/2018	5/18/2018	6/14/2018
Lab ID Number	30448-001	30557-001	30687-001	30766-001
Concentration ug/g dr	mg/Kg	mg/Kg	mg/Kg	mg/Kg
acetone				
2-Butanone (MEK)			4300.00	
1,2-dichloroethane				
1,1-dichloroethene				
1,4-dichlorobenzene				
benzene				
carbon tetrachloride				
toluene			200.00	
chloroform				
methyl ethyl ketone	2400.00	3005.00		
tetrachloroethene				
trichloroethene				
vinyl chloride				
2-methylphenol (m-creasol)			52.00	
3-4-methylphenol(p-o-c)				64.00
1,4 dichlorobenzene				
o-cresol	120.00	220.00		64.00
m-cresol				
p-cresol	120.00	220.00		64.00
2,4-dinitrotoluene				
hexachlorobenzene				
hexochloro-1,3-butadiene				
hexachloroethane				
nitrobenzene				
pentachlorophenol				
Pryidine				
2,4,5-trichlorophenol				
2,4,6-trichlorophenol				
phenol				

Date Received	7/27/2018	8/18/2018	9/21/2018	10/26/2018	TCLP Limits	NPDES	503 Rags	State NH (1)	State of
Lab ID Number	184790	187019	187019.01	188422	Criteria	Permit 5/1/15	Sub B (1)	Criteria	Compliance
Listed Parameter	ug/g	mg/kg	mg/kg	mg/kg	mg/kg dry wt.	mg/kg dry wt.	mg/kg dry wt.	mg/kg dry wt.	mg/kg dry wt.
Aluminum		6800.00		3100.00					
Antimony		2.30	2.50	1.50					
Arsenic	0.50	9.20	7.90	4.90	**100**	**8,573**	**41**	**32**	**Yes**
Barium	0.50	270.00	<0.5	290.00	**2,000**				
Beryllium	0.50	0.87	<0.5	<0.5					
Boron		5.60		5.00					
Cadmium	1.90	2.90	1.90	1.80	**20.0**	**43,416**	**39**	**14**	**Yes**
Chromium	23.00	29.00	25.00	14.00	**100**	**1,423,398**	**1,200**	**1,000**	**Yes**
Copper	300.00	350.00	300.00	260.00			**1,500**	**1,500**	**yes**
Iron	12000.00	11000.00	10000.00	10000.00					
Lead	68.00	59.00	51.00	23.00	**100**	**262,781**	**300**	**300**	**Yes**
Mercury	0.01	0.68	0.74	0.29	**4.0**		**17**	**10**	**Yes**
Molybdenum	6.50	7.10	9.30	7.20			**75**	**35**	**Yes**
Nickel		17.00	15.00	8.90		**213,643**	**420**	**200**	
Selenium	4.10	3.10	2.70	3.70	**20.0**		**100**	**28**	**Yes**
Silver	2.20	2.20	2.50	2.60	**100**				**Yes**
Thallium	0.50	<0.5	<0.5	<0.5					
Vanadium		12.00		5.50					
Zinc	660.00	710.00	650.00	480.00			**2,800**	**2,500**	**Yes**
% Solids	27.80%	0.29	17.90	24.20					
Free Lq (Paint Filter)	Absent	Absent	Absent	Absent					
% Carbon									
Total Organic Carbon									
% CaCO3 -eq.									
pH (Soil)									
Date of Analysis	7/27/2018	8/18/2018	9/21/2018	10/26/2018					
Lab ID Number	184790.01	185782.01	187019.01	188422.01					
Concentration ug/g dr	mg/Kg	mg/Kg	mg/Kg	mg/Kg					
acetone									
2-Butanone (MEK)	940.00	680.00	600.00	1500.00					
1,2-dichloroethane									
1,1-dichloroethene									
1,4-dichlorobenzene									
benzene									
carbon tetrachloride									
Toluene		41.00		160.00					
chloroform									
methyl ethyl ketone									
tetrachloroethene									
trichloroethene									
vinyl chloride									
2-methylphenol (m-creasol)									
3-4-methylphenol(p-o-c	140.00	43.00	84.00	1200.00					
1,4 dichlorobenzene									
o-cresol									
m-cresol									
p-cresol									
2,4-dinitrotoluene									
hexachlorobenzene									
hexochloro-1,3-butadiene									
hexachloroethane									
nitrobenzene									
pentachlorophenol									
Pryidine									
2,4,5-trichlorophenol									
2,4,6-trichlorophenol									
benzoic acid									

Date Received	11/27/2018	12/28/2018			TCLP Limits	NPDES	503 Rags	State NH (1)	State of
Lab ID Number	189714	190702			Criteria	Permit 5/1/15	Sub B (1)	Criteria	Compliance
Listed Parameter	mg/kg	mg/kg			mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt	mg/kg dry wt.
Aluminum		4300.00							
Antimony	1.90	1.90							
Arsenic	6.40	4.50			100	8,573	41	32	Yes
Barium	<0.5	260.00			2,000				
Beryllium	0.57	<0.5							
Boron		4.30							
Cadmium	3.0	2.10			20.0	43,416	39	14	Yes
Chromium	19.0	18.00			100	1,423,398	1,200	1,000	Yes
Copper	250.0	250.00					1,500	1,500	yes
Iron	11000.00	11000.000							
Lead	42.0	36.00			100	262,781	300	300	Yes
Mercury	0.30	0.32			4.0		17	10	Yes
Molybdenum	4.30	3.800					75	35	Yes
Nickel	12.0	10.00				213,643	420	200	
Selenium	2.0	3.10			20.0		100	28	Yes
Silver	2.0	2.40			100				Yes
Thallium	<0.5	<0.5							
Vanadium		8.80							
Zinc	480.0	530.00					2,800	2,500	Yes
% Solids	24.3	24.90							
Free Lq (Paint Filter)	Absent	Absent							
% Carbon									
Total Organic Carbon									
% CaCO3 -eq.									
pH (Soil)									

Date of Analysis	11/27/2018	12/28/2018
Lab ID Number	189714.02	190702.02
Concentration ug/g dr	mg/Kg	mg/Kg
acetone		
2-Butanone (MEK)	400.00	1700.00
1,2-dichloroethane		
1,1-dichloroethene		
1,4-dichlorobenzene		
benzene		
carbon tetrachloride		
chlorobenzene		
chloroform		
methyl ethyl ketone		
tetrachloroethene		
trichloroethene		
vinyl chloride		
2-methylphenol (m-creasol)		
3-4-methylphenol(p-o-c	1600.00	1400.00
1,4 dichlorobenzene		
o-cresol		
m-cresol		
p-cresol		
2,4-dinitrotoluene		
hexachlorobenzene		
hexochloro-1,3-butadiene		
hexachloroethane		
nitrobenzene		
pentachlorophenol		
Pryidine		
2,4,5-trichlorophenol		
2,4,6-trichlorophenol		
benzoic acid		

Information Required By EPA

Section Six

Description of Interference and Pass-Through

There was no industrial interference with the treatment plant process that caused any interference or pass-through during the June 1, 2017 through May 31, 2018 reporting period. The new aeration system is fully operational. The new system is much more forgiving in handling high loadings and low dissolved oxygen conditions are quickly corrected. EPD will continue monitor the conditions and adjust the performance of the plant's performance.

City of Manchester, NH Environmental Protection Division (EPD)
June 1, 2017 to May 31, 2018
IPP Annual Report

Information Required By EPA

Section Seven
Investigation of Interference and Pass-Through

The City of Manchester, EPD has taken a proactive approach in sampling the POTW influent and effluent for nutrients, metals and total phosphorus. EPD has taken the initiative to sample permit renewals that could potentially contribute to the metals and total phosphorus loadings at the treatment plant. EPD has determined that the Manchester Water Works and Granite Ridge Energy of New Hampshire are two industries that might be contributing to the influent aluminum during dry weather conditions.

EPD will continue to test for aluminum, mercury and total phosphorus from the contributing towns (Bedford, Goffstown and Londonderry) during the quarterly sampling activities.

The Town of Bedford quarterly sampling results from June 1, 2017 to May 31, 2018 indicated that they had not exceeded their allowable pounds per day for any of the parameters that were tested. The additional test results for aluminum, mercury and phosphorus are in the table below.

The additional sampling of:	Aluminum	Mercury	Total Phosphorus
3/24/2017	0.800 mg/l	0.00014 mg/l	6.70 mg/l
6/19/2017	1.30 mg.l	0.00024 mg/l	5.60 mg/l
2/9/2018	11.11mg.l	0.00020 mg/l	12.00 mg/l
5/2/2018	1.65 mg.l	0.00003 mg/l	7.60 mg/l

The Town of Goffstown quarterly sampling results from June 1, 2017 to May 31, 2018 indicated that they had not exceeded their allowable pounds per day for any of the parameters that were tested. The additional test results for aluminum, mercury and phosphorus are in the table below.

The additional sampling of:	Aluminum	Mercury	Total Phosphorus
3/24/2017	N S	N S	N S
6/19/2017	0.51mg/l	0.00004 mg/l	4.50 mg/l
2/21/2018	0.20 mg/l	0.00002 mg/l	2.50 mg/l
5/2/2018	0.25 mg/l	0.00002 mg/l	14.00 mg/l

Note: N S = sampler was not functional.

The Town of Londonderry quarterly sampling results from June 1, 2017 to May 31, 2018 indicated that they had not exceeded their allowable pounds per day for any of the parameters that was tested. The additional test results for aluminum, mercury and phosphorus are in the table below.

The additional sampling of:	Aluminum	Mercury	Total Phosphorus
3/24/2017	0.19 mg/l	N/D	7.30 mg/l
6/19/2017	0.59 mg/l	0.0002 mg/l	3.80 mg/l
2/9/2018	0.40 mg/l	0.00001 mg/l	7.30 mg/l
5/2/2018	0.83 mg/l	0.00001 mg/l	15.00 mg/l

EPD will continue to monitor the influent and effluent for those parameters to ensure we are meeting the effluent requirements.

Information Required By EPA

Section Eight

Monitoring for Interference and Pass-Through

The City of Manchester, EPD has an active sampling and monitoring program for interference and pass-through. Below are the tests performed for the parameters listed through the reporting period.

1. Influent and Effluent monitoring for metals, total phosphorous, cyanide, volatile and semi-volatile organics (priority pollutant scan).

2. Quarterly toxicity testing as outlined within the NPDES Permit.

3. Monthly Sludge analysis for metals. Testing includes the required total metals analysis (Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Zinc, and EPD added Al), but also included some TCLP and organics analysis when we landfill our sludge during incinerator shutdown.

4. Semi-Annual Ash monitoring for all priority pollutants.

5. Annual Grits & Screening for all priority pollutants.

6. Increased Class II Industrial sampling during permit renewals above what is required in the approved IPP.

7. Continued Effluent monitoring on a monthly basis. As of 2015, EPD has been monitoring the effluent twice a month for grab samples for Copper, Lead and Total Phosphorous due to the fact that those parameters are a requirement in our current NPDES permit.

8. Sampling of Intermunicipal Agreement communities (Bedford, Goffstown and Londonderry) for Local Limits metals of concern (Ag, Al, Cu, Pb, Hg, Zn and Total phosphorous). Due to EPA Interim Mercury Control Plan, EPD has begun sampling the Towns on a monthly basis for mercury.

9. A requirement of the Town of Londonderry is to check their discharges for excessive metals, organics, sulfides and other inorganics.

10. The City shall comply with the obligations to comply with the Interim Mercury Control Plan instituted by EPA under the air emissions requirements. Below are control measurements to assist in the investigation of mercury in our emissions.

    a. Manchester currently maintains a sludge-monitoring program that satisfies State and Federal requirements. This program includes evaluation of new industrial customers prior to receiving their wastewater, ongoing periodic and routine monitoring of customer wastewater and quarterly sampling of sludge feed to the FBI (as required by 40 CFR Part 503). All of the monitoring and sampling components of this program include mercury in their analyses.

b. Evaluate (a) the self-monitoring reports submitted by all facilities discharging to the WWTP under a municipal Industrial Discharge Permit (each hereinafter an Industrial Permittee), and (b) the results of annual Industrial Permittee wastewater sampling performed by Manchester, to determine the facilities that have the highest mercury content of wastewater by weight discharged to the WWTP for the past three years (Industrial Permittee wastewater is sampled at least three times per year, twice per year for the self-monitoring reports and once per year by Manchester).

c. If warranted, send an outreach letter to each Industrial Permittee identified in #1 and #2 requesting their assistance in reducing mercury in their wastewater discharges.

d. Collect wastewater samples from the three towns that have Intermunicipal Agreements with Manchester (Bedford, Goffstown, and Londonderry) (Towns) on a monthly basis, rather than the current quarterly basis, at the existing metered stations, to evaluate the Towns' mercury content of the wastewater by weight discharged to the WWTP. To determine whether a town exceeds its WWTP limit for mercury.

e. In the event that the increased wastewater sampling identifies a mercury exceedance by a Town, Manchester will send an outreach letter to the Town's Department of Public Works asking for their assistance in reducing mercury in its wastewater discharge and scheduled a meeting with the Town to discuss how best to address the exceedance.

f. Increase dental office inspections under the Industrial Pretreatment Program's Dental Amalgam Program from every two years to every year. Currently EPD has started inspected them and predict by mid-August all will be completed.

Information Required By EPA

Section Nine

Reduction Efforts for SNC SIUs

The City of Manchester, EPD continues to be diligent in notifying each industry of potential late sampling and reporting requirements as outlined in their permits. The industrial sampling, both City unannounced and industrial self-monitoring indicate that all permitted Class I CIUs/SIUs are discharging within their categorical and/or headworks loading concentrations.

The City of Manchester, EPD is continuing to take a proactive approach in investigating potential industries. We conduct an initial walk through, gather flow information (water consumption) with the City's billing department of potential industries, and log them into the database.

EPD joined the City of Manchester's Local Emergency Planning Committee (LEPC). Due to continued logistical issues there has not been any recent activity. The City hired a new Emergency Management Coordinator and EPD will re-establish our involvement and continue to work with this organization to assist in identifying potential industries of concern.

Information Required By EPA

Section Ten
Local Limits Adoption

The local limits are current and technically based. The EPA accepted the limits with notification to the City of Manchester on March 18, 1997. The City formerly adopted the limits within the Sewer Use Ordinance on August 5, 1997.

The City of Manchester's NPDES permit became effective May 1, 2015. A requirement was to submit, within 180 days of the effective date of the permit November 8, 2015, a "Reassessment of Technically Based Local Limits."

On October 26, 2015 EPD submitted to EPA its Reassessment of the Technically Based Local Limits. The City believes that the information confirms that Manchester's present Local Limits Headwork's Allocation is sound, conservative and protective of the wastewater treatment operations. The new discharge permit requires monthly monitoring of effluent copper with an average monthly limit of 24 ug/l. We have a chronic toxicity-reporting requirement of >8.5% for NOEC and an acute toxicity requirement of an LC50 of >100%.